



Business Climate Heatmap:

Measuring Dutch Business Climate Trends



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Introduction

PwC has developed a heatmap with a broad set of indicators to provide a comprehensive insight into the position of the Netherlands compared to the past and other countries.

Complaints about the Dutch business climate have increased

The Dutch business climate is under pressure. Companies feel restricted in their growth within the Netherlands due to labour shortages, shrinking grid capacity, and limited physical and environmental space, among other issues. In addition, Dutch laws and regulations are too volatile to base long-term investments on. PwC's survey of CEOs in early 2024 found that four in ten Dutch-based companies are considering moving their operational activities elsewhere, partly because of unpredictable and sometimes ill-considered changes in tax legislation.¹

A good business climate is crucial for an ageing society

The business climate is the environment in which companies can innovate, invest and grow, all within the carrying capacity of the earth. A good and stable business climate translates into more economic growth and prosperity for the Netherlands. This cannot be underestimated now that our structural capacity for growth is sinking to less than 1% in 2040.² In that year, population ageing will peak, and the ratio of workers to those entitled to state pensions will be at its lowest. The government will have to pull

out all the stops to maintain the level and accessibility of social security, healthcare and education. In addition, more investments will have to be made to achieve net-zero ambitions and adapt to a warmer world. Without sound public finances, this will not be possible. Such pressing societal demands require a steady stream of tax revenues. The higher the economic growth, the higher the government's tax revenue, and the higher the capacity to invest in broad welfare.

A high position in the ranking is no guarantee for the future

The Dutch government, which took office in July 2024, has expressed the ambition that the Netherlands should remain in the top five competitive countries. Every year since 2017, the country has been in the top six of the IMD's World Competitiveness Ranking. In 2024, however, the Netherlands dipped to the ninth spot. It still ranks highly in other international rankings, so there is plenty to lose. Nevertheless, this slightly deteriorating, but still positive, picture is based on historical data. Past results, especially in a polarised and fragmented political climate coupled with rising geopolitical tensions around the world, do not guarantee the same in the future.

¹ PwC (2024): PwC's 27th Annual Global CEO Survey.

² Rabobank (2024-01-24): Investerings moeten prominenter op de politieke agenda.



A heatmap to provide a comprehensive insight into the state of the Dutch business climate

To provide a more comprehensive insight into the position of the Netherlands compared to the past and other countries, PwC has developed a business climate heatmap. This heatmap consists of 60 indicators measured over time related to the business climate. The government and policymakers can use it to understand which areas of the business climate call for more attention. For companies, it provides a tool to assess where they want to make their expansion investments. In addition, society gets a deeper and more data-driven understanding of the business climate.

The heatmap enables continuous monitoring

This is the first edition of the business climate heatmap. PwC aims to continuously monitor developments in the Dutch business climate through future updates of the business climate heatmap.

This business climate heatmap tries to give an answer to these questions:

- What is the business climate?
- Which categories and data points make up the business climate?
- Has the Dutch business climate deteriorated in the past ten years, and if so, by how much and in which areas?
- How does the Dutch business climate compare to countries such as Germany, the United Kingdom (UK), France, Belgium, Denmark, Switzerland and Luxembourg?





Executive summary

This first edition of PwC's Business Climate Heatmap shows how the Dutch business climate has changed from 2013 to 2023. After a period of positive improvements, since 2018, the Dutch business climate has worsened, even more so in the last two years, sliding back to 2013 levels. Looking back over the same period and comparing the Dutch business climate with that in seven other European countries reveals that the Netherlands has consistently outperformed countries such as Belgium, the UK, France and Germany. However, the Netherlands has been losing ground against Denmark and Switzerland since 2013.

The Dutch business climate heatmap over time

The business climate is a multi-faceted issue. Current research on the business climate in the Netherlands mainly focuses on qualitative studies or interviews with companies. There are rankings, such as the IMD World Competitiveness Ranking, but these do not look at the Dutch business climate in depth and focus mainly on the international dimension. More data-driven research has been lacking. Hence, we look at the Dutch business climate from two angles.

First, we compare the Dutch business climate from 2013 to 2023 using historical data from 1990 for **60 indicators** organised in six categories that we further divide into subcategories. We call this '**the Dutch business climate heatmap over time**'.

1. **Human Capital:** measures the availability, quality and productivity of the labour force.
2. **Infrastructure and Physical Space:** captures the quality and pressure on physical infrastructure, housing and the natural environment.
3. **Macroeconomics:** looks at the economic performance and stability.
4. **Physical Safety and Security:** measures crime, safety and prevalence of natural disasters.

5. **Politics, Regulation, Institutions and Society:** captures the functioning of the democratic, legal, regulatory and government institutions, and the level of equality and taxation.
6. **Trade, Investment and Market Opportunities:** measures the functioning of capital markets and lending institutions, the degree of economic competition, and openness to trade and investment.

The international business climate heatmap

When looking at the business climate, the national heatmap can only tell how the Netherlands has compared over time with itself. However, countries compete internationally by maintaining the attractiveness of domestic firms to expand their businesses and attracting new investment from abroad. Hence, it is important to also consider how the Netherlands has performed over time compared to its peers. That's why we compare the position of the Netherlands to that of Belgium, Denmark, France, Germany, Luxembourg, Switzerland and the UK, using the same set of indicators and categories.³ We refer to this as '**the international business climate heatmap**'.

³ Due to data availability, all countries in the sample have 60 indicators, except the UK, which includes 56, Denmark 57, Luxembourg 54 and Switzerland 53.

The business climate heatmap over time: the Dutch business climate from 2013 to 2023

Since an uptick from 2013 to 2018, there has been a deterioration in the business climate in the Netherlands. This has become more pronounced in the last two years.

Here is an overview of the results of the comparison of the Dutch business climate since 2013 for each of the six categories.

1. Human Capital:

- Looking at the **Demographics** indicators, the Dutch population has been growing faster than the average level from 1990 to 2023 in recent years, reflecting the attractiveness of the Netherlands for foreign talent. This has led to an increase in population density. In addition to the ageing population, this trend has been straining the infrastructure and public services.
- **Education** has improved as more people in the Netherlands have at least tertiary (post-high school) education, and education spending and quality have recovered to around the average levels from 2013 to 2023.
- In addition, **Human capital and research** indicators have improved, with average net incomes, life expectancy, and spending and quality of research and development (R&D) rising slightly.

- Similarly, in **Labour productivity, shortages and costs**, labour productivity has been stagnating despite rising labour costs. In addition, labour shortages have become more pronounced since the Covid-19 pandemic.

2. Infrastructure and Physical Space:

- Among **Energy and environment** indicators, while there has been an improvement (reduction) in CO₂ emissions per capita and total nitrogen emissions, other environmental performance indicators have deteriorated.
- In addition, **Housing** has become significantly less affordable in the last five years.
- Within **Infrastructure and transport**, ICT use and access, physical infrastructure and connectivity have improved.

3. Macroeconomics:

- Looking at **Government debt and spending**, the government was spending more around the Covid-19 pandemic, but recently spending and fiscal health (in terms of deficits and debt levels) have returned to average levels from 2013 to 2023.
- In terms of **Macroeconomics**, the last two years have been historically bad, with high inflation, low consumer confidence and deteriorating economic sentiment. Economic growth rebounded after the Covid-19 pandemic but remains below

the pre-pandemic trend.

- **Uncertainty**, after peaking in the 2016-2017 and 2019-2020 periods, diminished in 2023, falling below the average from 1990 to 2023.

4. Physical Safety and Security:

- **Crime and safety** data show that homicides and thefts per 100,000 inhabitants have slightly increased recently, reaching average levels from 2008 to 2023.
- In addition, in **Risk and disasters**, climate and natural hazard risks have lately become slightly elevated. Pandemic uncertainty peaked during Covid-19, and now it is back to an average from 1996 to 2023.

5. Politics, Regulation, Institutions and Society:

- **Democracy, Governance, and Regulatory and policy environment** indicators have been deteriorating slightly compared to their historical averages.
- The **Equality** category shows that income inequality has improved recently. Similarly, the gender gap has diminished slightly in the past few years.
- On **Taxes**, the tax burden for companies and the overall Dutch tax competitiveness compared to other countries have decreased.

6. Trade, Investment and Market Opportunities:

- Within **Capital markets**, the market capitalisation as a share of GDP has risen above average in the 2013-2023 period. The number of domestically listed companies has decreased below the historical average from 1990 to 2023, but their value has increased.
- In terms of **Credit**, the cost of borrowing has only recently started rising, while before that, it was low compared to the average from 2003 to 2023. The ease of lending and the share of loans in GDP have been around the average from 1990 to 2023 recently.
- New firm entries have boosted **Economic dynamism and competition**, while the role of large companies is rising and openness, competition and market scale indicators have been decreasing recently.
- **Financial soundness** has remained good, with banks well-capitalised and the share of non-performing loans being low for the 2008-2022 period.
- In terms of **Investment**, foreign direct investment (FDI) net inflows have slightly improved, while FDI net outflows have worsened. Investment freedom is around the historical average of 2013 to 2023.
- Lastly, the role of **Trade** for the Dutch economy has increased since 2013, well above the average levels in the 1990-2023 period.



The international business climate heatmap: comparison of the Dutch business climate to other countries

Comparing internationally against the same 60 indicators, the Netherlands has consistently had a higher average business climate score than Belgium, the UK, France and Germany, as the Netherlands was in the same group of such countries as Denmark, Switzerland and Luxembourg. However, since 2013, the Netherlands has been losing its relative position against the better-performing Denmark and Switzerland.

These developments underscore two points. First, since 2018, there has been a downward trend in the Dutch business climate, bringing the Netherlands back to 2013 levels. Second, all other countries that we include in our comparison, except for Switzerland and Denmark, have experienced an even steeper decline. Hence, the Dutch situation, to some extent, has been helped by bigger issues elsewhere.

It is worth noting that although we include countries that are comparable to the Netherlands in many aspects, these relative results still depend on the sample of countries included. This underscores the need for a nuanced debate on the topic. When assessing the Dutch business climate, policymakers and business leaders should consider the backdrop against which it is measured. It is, however, important to try to understand the reasons behind this downturn and implement the right policies to get the Netherlands back on an upward path.



Identifying the main factors that determine the business climate

Definition of business climate

In Dutch, there are two terms that are frequently used interchangeably in business climate discussions: *ondernemingsklimaat* (business climate) and *vestigingsklimaat* (investment climate for multinationals). The first term, *ondernemingsklimaat* or business climate, refers to the conditions that companies face when establishing, operating and expanding in a country. The second term, *vestigingsklimaat* or investment climate, which is part of the business climate, focuses on the attractiveness of a country or region for internationally operating companies. Both the business and investment climates of a country largely overlap and are influenced by a similar set of factors.⁴

Here, we focus on the business climate, which can be defined as ‘the sum of factors in a country that weigh in a company’s decision to start or expand activities’.⁵ In our interpretation, we follow this logic and try to incorporate as many relevant factors as possible that influence the decisions of companies to establish themselves, operate and expand in a country.

Methodology and data scope

To find the categories and indicators for the heatmap, we looked at the available academic literature and the research on the Dutch business climate. Up to this point, studies have mainly been qualitative and based on survey data from companies.⁶ Even though such an approach is valid and informative, to thoroughly understand the discussions surrounding the Dutch business climate, we decided to follow a more data-driven approach. The main issues mentioned by surveyed companies that impact the business climate in the Netherlands were the instability of the tax policy, high regulatory pressure, political instability, lack of a government vision, labour shortages, less competitive financing options, and overcrowded infrastructure and physical space.

Islam & Beloucif (2023), after reviewing 112 empirical studies from 2000 to 2018 on the determinants of foreign direct investment, found that companies tend to look at a variety of indicators such as the size of the host market, trade openness, infrastructure quality, labour cost, macroeconomic stability, human capital, and the growth prospect of the host country, among many other factors (see figure 1).⁷

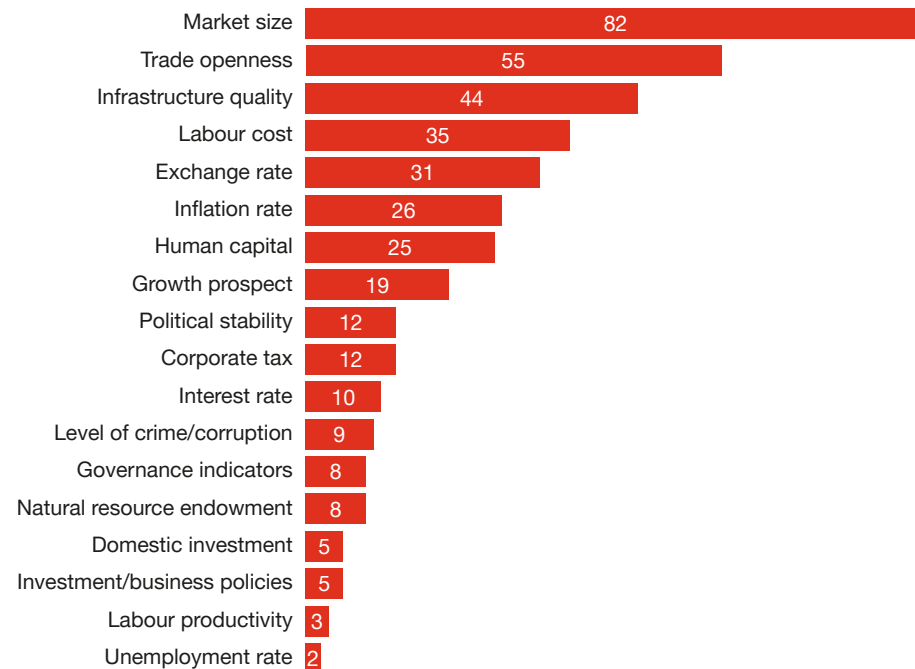
⁴ SEO (2023): Monitor ondernemingsklimaat.

⁵ Rabobank (2024-01-24): Investeren moeten prominenter op de politieke agenda.

⁶ Some of the studies that we looked at were SEO (2023): Monitor Ondernemingsklimaat, VNO-NCW (2024): National Poll Business Climate 2024 and Buck (2023): Reasons Why Companies Exit the Netherlands.

⁷ Islam & Beloucif (2023): Determinants of Foreign Direct Investment: A Systematic Review of the Empirical Studies.

Figure 1 Key determinants of FDI according to their frequency mentioned in academic literature



Source: Islam & Beloucif (2023)

However, this is not an exhaustive list, and in practice, companies look at an even larger list of factors. In addition, not only these factors but also the weights that companies in certain industries and countries attach to them might differ in each case.

With that in mind, we decided to follow this approach: We selected an extensive and uniform set of factors that were identified as important business climate determinants in academic literature and other studies, also keeping in mind data availability for the Netherlands and other countries in our sample.⁸

Hence, we use 60 indicators, which we organise into six categories, and within each category further into several subcategories:

- **Human Capital**
- **Infrastructure and Physical Space**
- **Macroeconomics**
- **Physical Safety and Security**
- **Politics, Regulation, Institutions and Society**
- **Trade, Investment and Market Opportunities**

Moreover, we focus on a ten-year time span from 2013 to 2023. That allows us to both focus on the latest developments while also contrasting them with medium-term trends.

Additionally, we decided to attach equal weight to each of the 60 indicators by leaving them unweighted, as there is limited evidence to understand which factors should weigh heavier for the business climate in each country. Nevertheless, we try to incorporate as many indicators as possible that are well-representative of different dimensions in each category while being mutually exclusive.

Next, the indicators in our data come from several sources and have different measurements. For example, we have

measures such as inflation and population growth, which are difficult to compare against each other. Hence, to allow for comparisons across indicators, we perform standardisation for each indicator, using as many historical data points from 1990 as possible (see the appendix on page 25 for more details).

What this means is that for each indicator, 0 represents its historical average, and the standard deviation, which measures how much the indicator deviates from the average, is 1. If an indicator is above (below) by one standard deviation from its historical average, we call that high (low) compared to the historical average and colour it green (red). The colour intensity changes to greener (redder) if the indicators are more above (below) their historical average.

Lastly, it is important to keep in mind that some categories have more indicators than others. Therefore, when reporting the average score per category, indicators in categories with fewer indicators would weigh more than indicators in categories with more indicators. Hence, it is important to contrast the average category score with the scores of each indicator within that category as well.

⁸ With the selected 60 indicators, we give a representative picture of the business climate. Still, we would have liked to include more indicators, such as wealth inequality and biodiversity. However, due to a lack of data, this was not possible.





The Dutch business climate heatmap over time

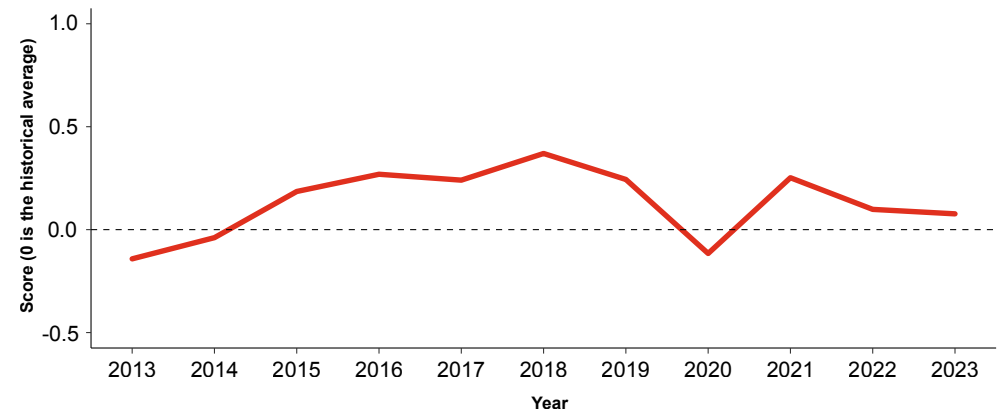
Sixty indicators over time

In this chapter, we compare the Dutch business climate from 2013 to 2023, using historical data from 1990 for 60 indicators organised into six categories. First, we plot the average of all 60 indicators in the Dutch business climate heatmap over time (figure 2).

From 2013 to 2018, there was an improvement in the business climate as the average score of all indicators increased

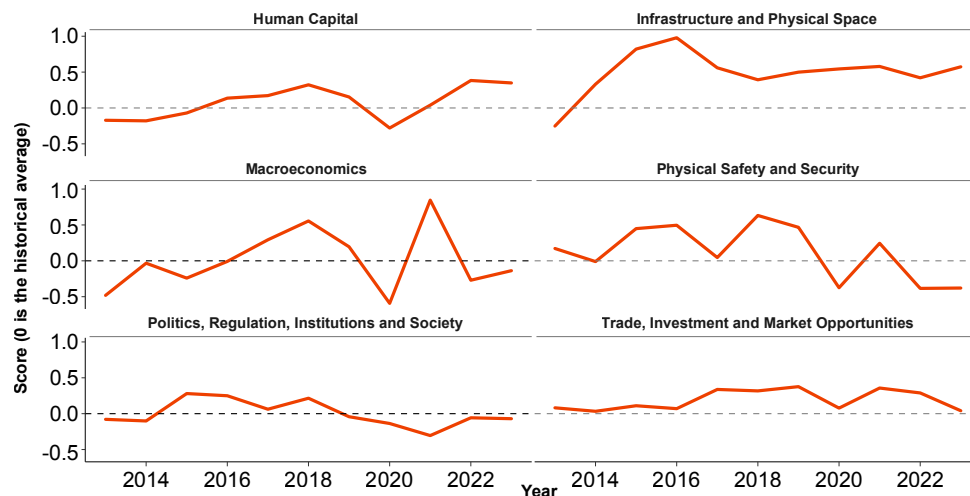
above the historical average. Nevertheless, since 2018, a sharp deterioration has been happening, exacerbated by the Covid-19 pandemic. Although from 2020 to 2021 a recovery was underway, it has been interrupted by another but more gradual decline, bringing the business climate close to its historical average level.

Figure 2 After improvement from 2013 to 2018, the business climate in the Netherlands has slightly worsened



This is the average of 60 indicators, with the dashed line representing the historical average. Each indicator is standardised by calculating Z-scores, which have 0 as the historical average and 1 as the standard deviation, based on as much data as is available from 1990.

Figure 3 All categories besides Human Capital, and Infrastructure and Physical Space have declined since 2018



Each plot captures the average score of indicators per category, with the dashed line representing the historical average of each category. Each indicator is standardised by calculating Z-scores, which have 0 as the historical average and 1 as the standard deviation, based on as much data as is available from 1990.

Next, we split all the indicators into six categories and plot the average score per category (*figure 3*).

In the next chapters, we dive deeper into the indicators behind each category. But before we do that, here we give a higher-level overview per category.

The **Human Capital**, and **Infrastructure and Physical Space** categories have increased the most since 2013. However, while the

Human Capital indicators are at 2018 levels, the **Infrastructure and Physical Space** category improved sharply from 2013 to 2016 but has decreased since then. Similarly, the **Macroeconomics** category improved from 2013 to 2018, dropped significantly in 2020, recovered shortly after, and is now back to slightly below the historical average. This has been the most volatile category recently. The **Politics, Regulation, Institutions and Society** category has meaningfully slipped since 2018. The same

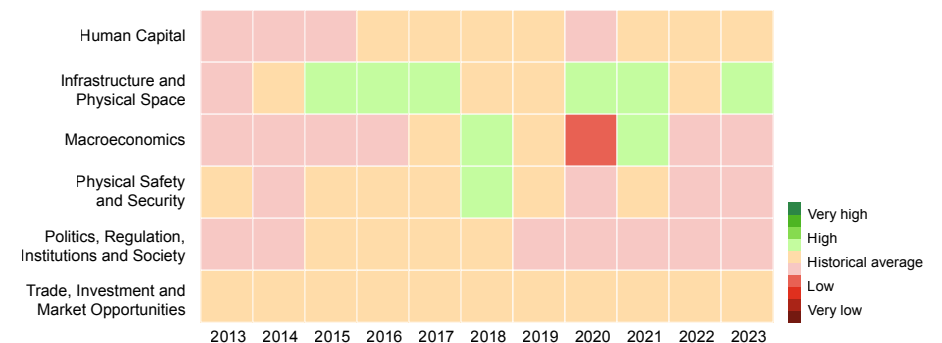
can be said about the **Trade, Investment and Market Opportunities** category.

To follow, we include here the Dutch business climate heatmap per category (*figure 4*). This heatmap tracks the changes in the Dutch business climate over time (see the appendix on page 25 for more details). To interpret the heatmap, if a category is yellow, it is around the historical average value. The greener (or redder) the category is, the more the category positively

(or negatively) deviates from the historical average. The full heatmap can be seen in the appendix on page 22.

Next, we delve deeper into each of the categories of the business climate and explain the indicators used.

Figure 4 The business climate, after an improvement from 2013 to 2018, has deteriorated



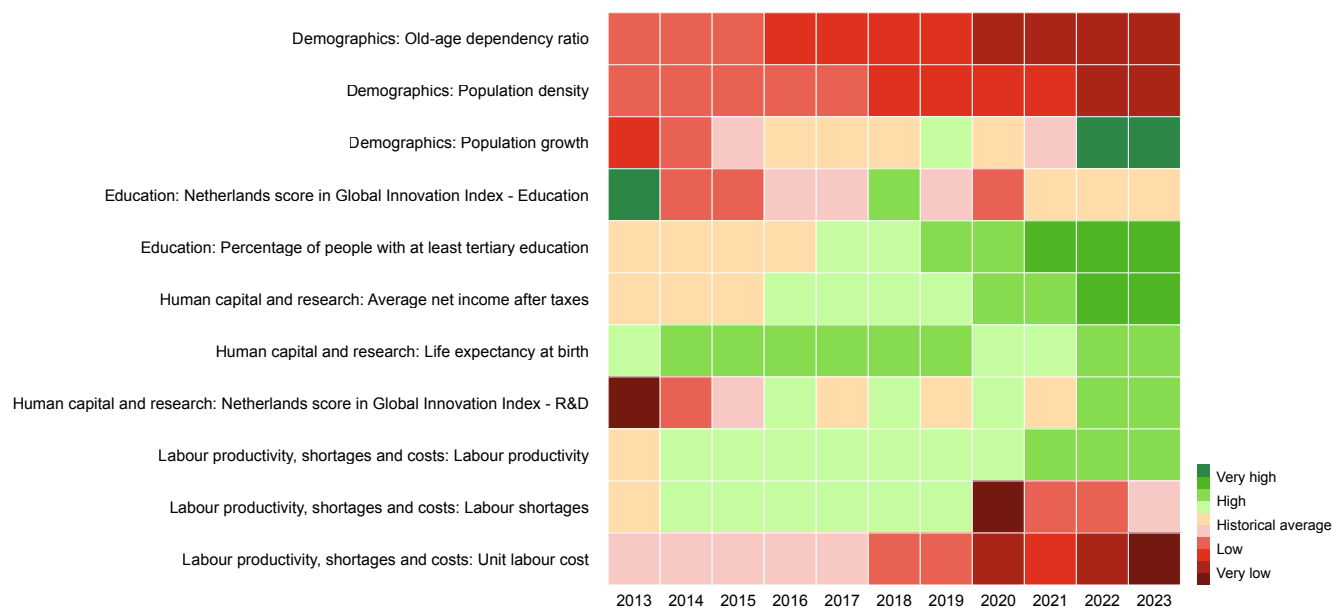
Human Capital

Figure 5 gives an overview of the subcategories and indicators within **Human Capital**. More information about the data for the indicators in this category is in the appendix on pages 25 and 26.

Demographics captures trends that are negative to the business climate, such as population ageing and population density, and positive ones, such as population growth. Looking at the **Demographics** indicators, the Dutch population has been growing faster than the average level from 1990 to 2023 in recent years, reflecting the attractiveness of the Netherlands for foreign talent. This has also led to an increase in population density. In addition to the ageing population, this trend has been straining the infrastructure and public services.

Education incorporates the quantity and quality of education in the current and upcoming working population. More specifically, the Global Innovation Index – Education indicator is based on expenditure on education, school life expectancy in years, pupil-teacher ratio, and PISA scores in reading, maths and science. We also look at the percentage of people with at least tertiary education. **Education** indicators have improved as more people in the Netherlands have at least tertiary (post-high school) education, and education spending and quality have

Figure 5 Human capital is above its historical average, but due to Demographics, and Labour productivity, shortages and costs, that is not enough to turn into 'green'



recovered to around the average levels from 2013 to 2023.

Human capital and research capture the expenditure and quality of research, the health of the population and the attractiveness of talent based on net income. The Global Innovation Index – R&D indicator includes full-time researchers per million inhabitants, gross expenditure on research

and development (R&D), average R&D expenditure of the top three firms and the average ranking of the top three universities in the QS University ranking. **Human capital and research** indicators have improved, with average net incomes, life expectancy and R&D intensity rising slightly.

Labour productivity, shortages and costs category captures labour productivity,

shortages and the price of labour. Within this group of indicators, labour productivity is quite high but growing slowly. Both labour shortages and labour costs have become more pronounced recently.

Infrastructure and Physical Space

Figure 6 gives an overview of the subcategories and indicators within **Infrastructure and Physical Space**. More information about the data for the indicators in this category is in the appendix on page 26.

Energy and environment capture the degree of decarbonisation and nitrogen reduction, the quality of the environment and water stress. The Global Innovation Index – Environmental performance indicator includes several indicators of environmental health and ecosystem vitality. Among **Energy**

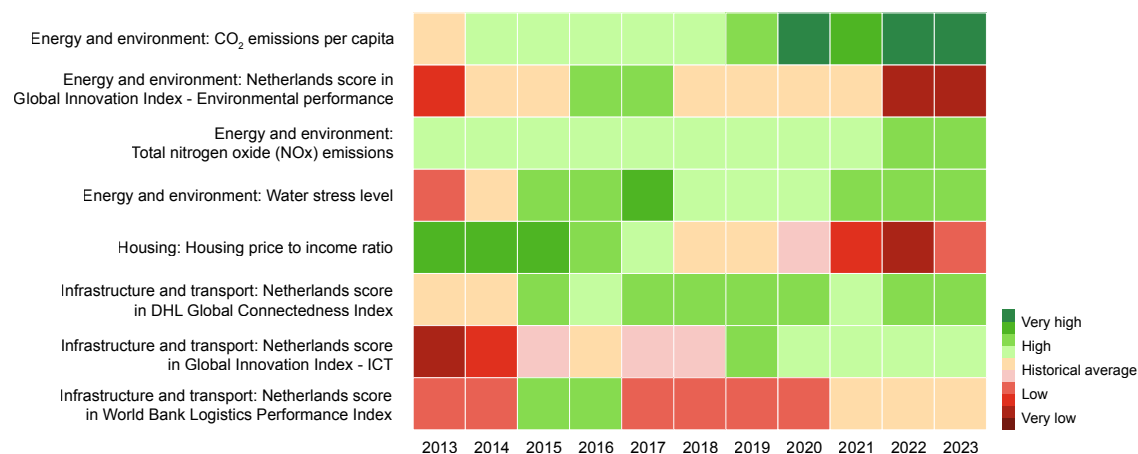
and environment indicators, there has been an improvement (reduction) in CO₂ emissions per capita and total nitrogen emissions, but other environmental performance indicators have decreased.

Housing captures housing affordability by the housing price to income ratio. It clearly shows that housing has become significantly less affordable in the last five years.

Within **Infrastructure and transport**, the DHL Global Connectedness Index captures connectivity and integration in global goods, capital, services, information and people

flows. The Global Innovation Index – ICT indicator includes ICT (Information and Communication Technology) access and use in society and government. The score in the World Bank Logistics Performance Index measures quality in many dimensions of physical infrastructure, such as ports, roads and airports. **Infrastructure and transport** indicators show that infrastructure, both ICT and physical, as well as connectivity, have improved. The Logistics Performance Index score has been around its historical average.

Figure 6 Environmental performance and Housing have been the worst performers within Infrastructure and Physical Space



Macroeconomics

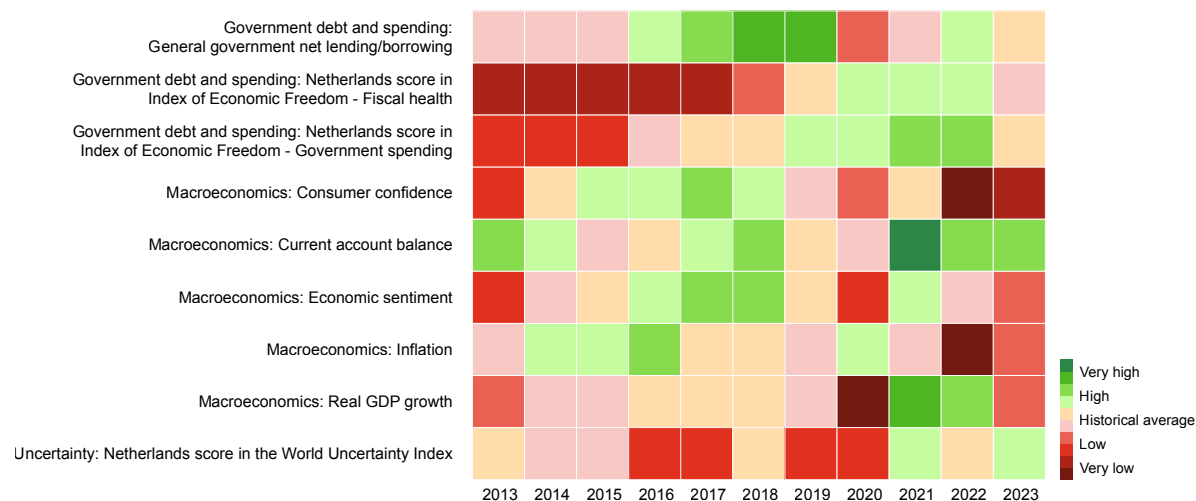
Figure 7 gives an overview of the subcategories and indicators within **Macroeconomics**. More information about the data for the indicators in this category is in the appendix on pages 26 and 27.

Government debt and spending capture the fiscal health of the economy (debt and deficit levels). The Dutch government was spending more around the Covid-19 pandemic, but recently spending has returned to historical levels. In addition, the overall fiscal health has improved since 2013 and has been stable with a slight deterioration in 2023.

Macroeconomics incorporates measures on inflation, consumer confidence, current account balance, economic sentiment and real GDP growth. The last two years have been historically bad, with high inflation, low consumer confidence and deteriorating economic sentiment. Economic growth rebounded after the Covid-19 pandemic but remains below the pre-pandemic trend.

Uncertainty looks at economic and political uncertainty using the World Uncertainty Index. The Dutch uncertainty measure in the index, after peaking in the 2016-2017 and 2019-2020 periods, diminished in 2023 below the average from 1990 to 2023.

Figure 7 In Macroeconomics, consumer confidence, economic sentiment, inflation and real GDP indicators have worsened





Physical Safety and Security

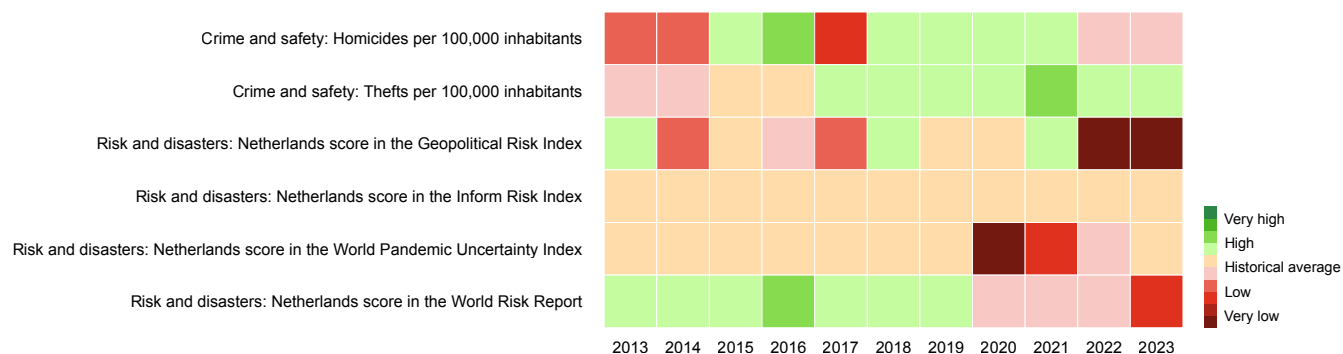
Figure 8 gives an overview of the subcategories and indicators within **Physical Safety and Security**. More information about the data for the indicators in this category is in the appendix on page 27.

Crime and safety capture the homicide and theft levels. The data show that homicides and thefts per 100,000 inhabitants have slightly increased recently, reaching average levels from 2008 to 2023. Nevertheless, the Netherlands remains a generally safe country with low crime rates.

Risk and disasters measure geopolitical risk, disaster, natural hazard, climate and pandemic risks. Climate and natural hazard risks have lately become slightly elevated. Pandemic uncertainty peaked during Covid-19, and now it is back to an average from 1996 to 2023.



Figure 8 Rising geopolitical and climate change risks have mainly impacted Physical Safety and Security



Politics, Regulation, Institutions and Society

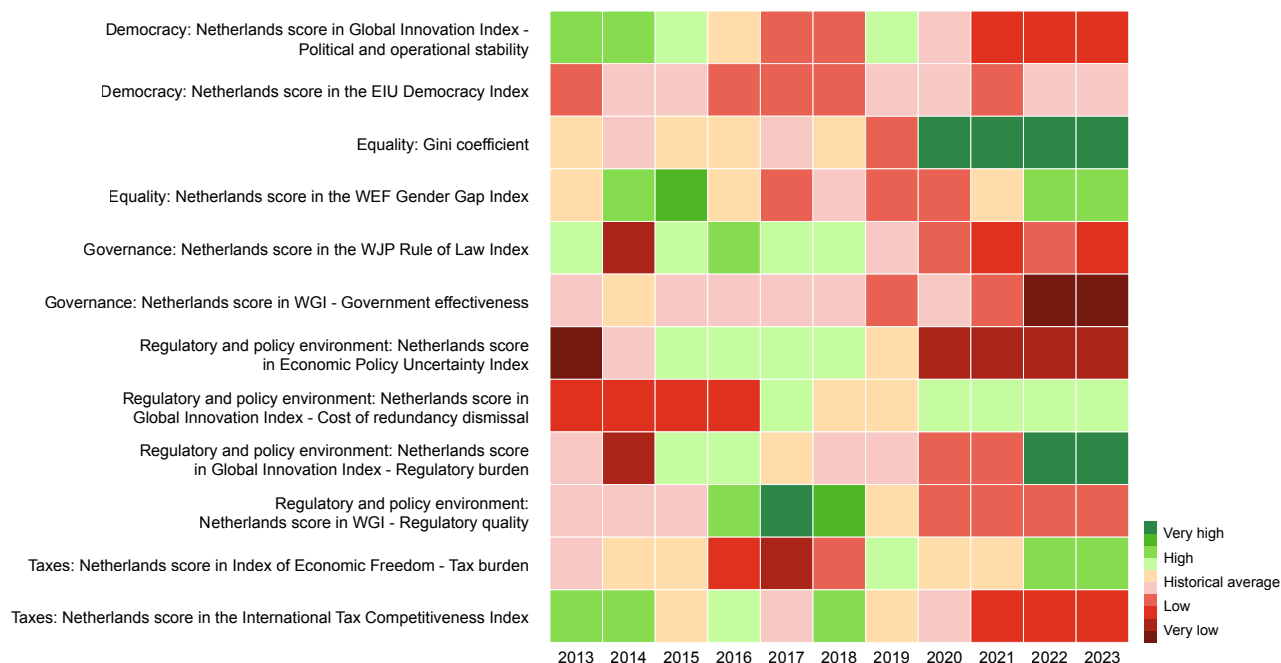
Figure 9 gives an overview of the subcategories and indicators within **Politics, Regulation, Institutions and Society**. More information about the data for the indicators in this category is in the appendix on page 28.

In the **Democracy** category, the Global Innovation Index – Political and operational stability measures the likelihood and severity of political, legal, operational or security risks affecting business operations from a country-risk perspective. The EIU Democracy Index looks at the quality of democracy based on democratic rights and institutions. The indicators show that for the Netherlands, political and operational stability have slightly worsened, while the quality of Dutch democracy is around its average level.

The **Equality** category looks at the level of income and gender inequality. The Gini coefficient shows that income inequality has improved recently. Similarly, the WEF Gender Gap Index indicates that the gender gap has diminished slightly in the past few years.

Governance captures government effectiveness and the enforcement of the rule of law. While the Netherlands historically has performed very well in this area compared to other countries, recently the Dutch scores in the WJP Rule of Law and the

Figure 9 Concerns for the Netherlands in Politics, Regulation, Institutions and Society mainly come from worsening governance, and regulatory and policy environment



WGI – Government effectiveness indicators have declined to historically low levels. The Netherlands still ranks quite high compared to other countries, but lower than previously.

Regulatory and Policy Environment indicators look at policy predictability, redundancy costs, regulatory burden and

quality of regulation. Economic policy uncertainty has become more pronounced since the Covid-19 pandemic. The costs of redundancy dismissal are slightly above average. The regulatory burden has improved (i.e., decreased) recently. Lastly, the Dutch rank in the WGI – Regulatory quality indicator has dipped since 2018.

Taxes measure tax competitiveness and effective tax rates. The tax burden for companies and the overall Dutch tax competitiveness compared to other countries have decreased.

Trade, Investment and Market Opportunities

Figure 10 gives an overview of the subcategories and indicators within **Trade, Investment and Market Opportunities**. More information about the data for the indicators in this category is in the appendix on pages 28 and 29.

The **Capital markets** category captures the size of capital markets in terms of total volume and the number of companies. The Global Innovation Index - Investment captures investor protection, market capitalisation as a share of GDP and the size of the venture capital industry.

Capital markets have slightly deteriorated since 2019 in terms of the rising market capitalisation as a share of GDP. Here, the market cap as a share of GDP has risen above average in the 2013-2023 period. The number of domestically listed companies has decreased below the historical average from 1990 to 2023, but their value has increased.

Credit looks at the cost of borrowing and the Global Innovation Index - Credit measures the ease of access to lending and the volume of lending in the economy. Borrowing, driven by rising interest rates, has recently become more expensive, while it was more affordable previously compared to the 2003-2023 period. The ease of lending and the share of loans in GDP have been around the average from 1990 to 2023 recently.

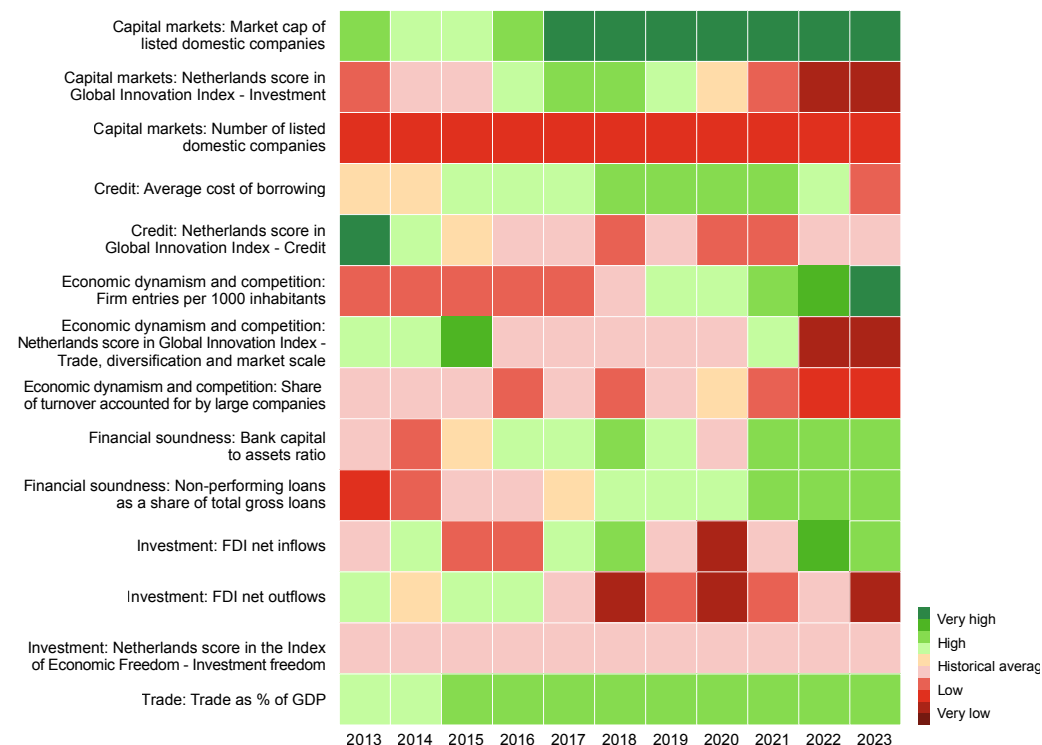
Economic dynamism and competition measure the number of new firm entries and the degree of dominance of large firms, as measured by the rising share of turnover accounted for by large companies. The Global Innovation Index - Trade, diversification and market scale includes indicators on weighted tariff rates, industry diversification and domestic market scale. On the one hand, new firm entries have boosted economic dynamism and competition. On the other hand, the role of large companies has been rising. In addition, trade openness, competition and market scale have been decreasing recently.

Financial soundness captures bank stability in terms of the level of equity and a healthy loan portfolio. Financial soundness has remained good, with banks well-capitalised, and the share of non-performing loans has been low for the 2008-2022 period.

Investment includes FDI inflows and outflows and the ease of investing. FDI net inflows have slightly improved, while FDI net outflows have worsened. Investment freedom is around the historical average of 2013 to 2023.

Trade captures the importance of trade for the economy as a share of GDP. The role of trade for the Dutch economy has increased since 2013, well above the average levels in the 1990-2023 period.

Figure 10 Within Trade, Investment and Market Opportunities, capital markets, economic dynamism and investment raise concerns





The international business climate heatmap

Comparisons with seven countries

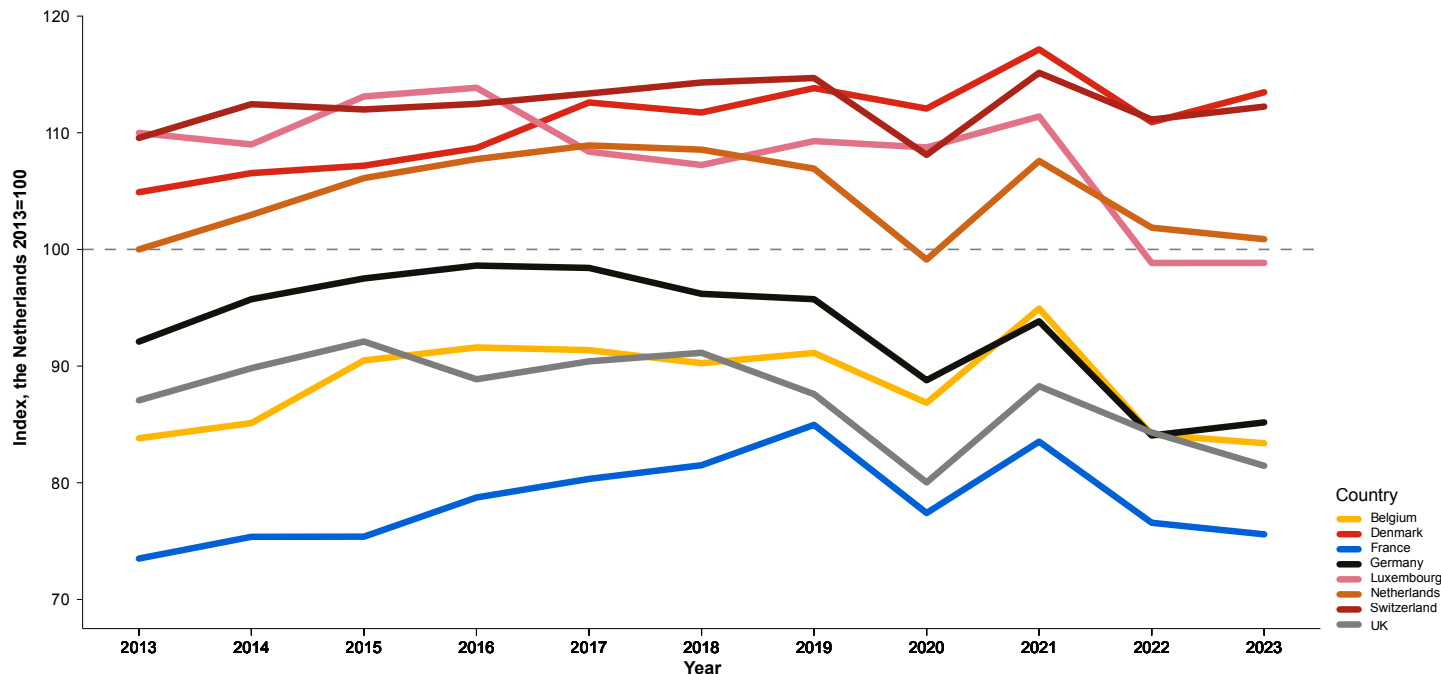
To understand business climate trends, it is also important to consider the international dimension. After all, multinationals base their location and investment decisions on a comparison of conditions in different countries. We therefore collected data for the same 60 indicators for seven other countries: Belgium, France, Germany, the UK, Denmark, Switzerland and Luxembourg, focusing on the 2013 to 2023 period.⁹

Then, each indicator was compared to the minimum and maximum values for the whole pooled series over time across the eight countries. Hence, here the indicators range from 0 (the minimum in the sample) to 1 (the maximum in the sample). For more details, see the appendix on page 25.

⁹ Due to data availability, all countries in the sample have 60 indicators, except the UK, which includes 56, Denmark 57, Luxembourg 54 and Switzerland 53. See the appendix on page 29 for more details.

First, we compare in *figure 11* how the Dutch relative position over time has performed against that of the other countries in the sample. We adjust the relative scores by making an index with the value for the Netherlands in 2013=100.

Figure 11 The relative position of the Dutch business climate has not changed much since 2013



Each line represents the average relative score of the business climate for each country. This score is based on country-specific indicators that we have made comparable to each other. The Dutch value in 2013 is equal to 100.

The Dutch business climate has kept its relative position because of bigger problems elsewhere

From 2013 to 2023, the biggest relative business climate declines have happened in Luxembourg, Germany and the UK. Switzerland, the Netherlands and Belgium are approximately in the same position, while Denmark has improved its business climate compared to other countries in the sample. In addition, already in 2013, there was a significant gap between the business climate in the Netherlands, Switzerland, Denmark and Luxembourg compared to Germany, the UK, France and Belgium. This has even slightly widened. Luxembourg, which was in the top four countries in this group in 2013, seems to now be trending towards the bottom four.

It must be noted that these results depend highly on the sample of comparison countries, even though we are including countries that could be considered peer countries of the Netherlands in many aspects. The business climate in many of those countries has been facing issues (Brexit for the UK, reliance on Russian gas for Germany), some more than others. Nevertheless, both the comparisons over time and internationally show that the business climate in the Netherlands, albeit not at alarming rates yet, has been on a downward trend since 2018. In some way, the Dutch business climate has been helped by bigger problems elsewhere.

Second, we break down the relative scores of each country by category (*figure 12*). For each category, we adjust the relative score by making an index with the value for the Netherlands in 2013=100 for each category.

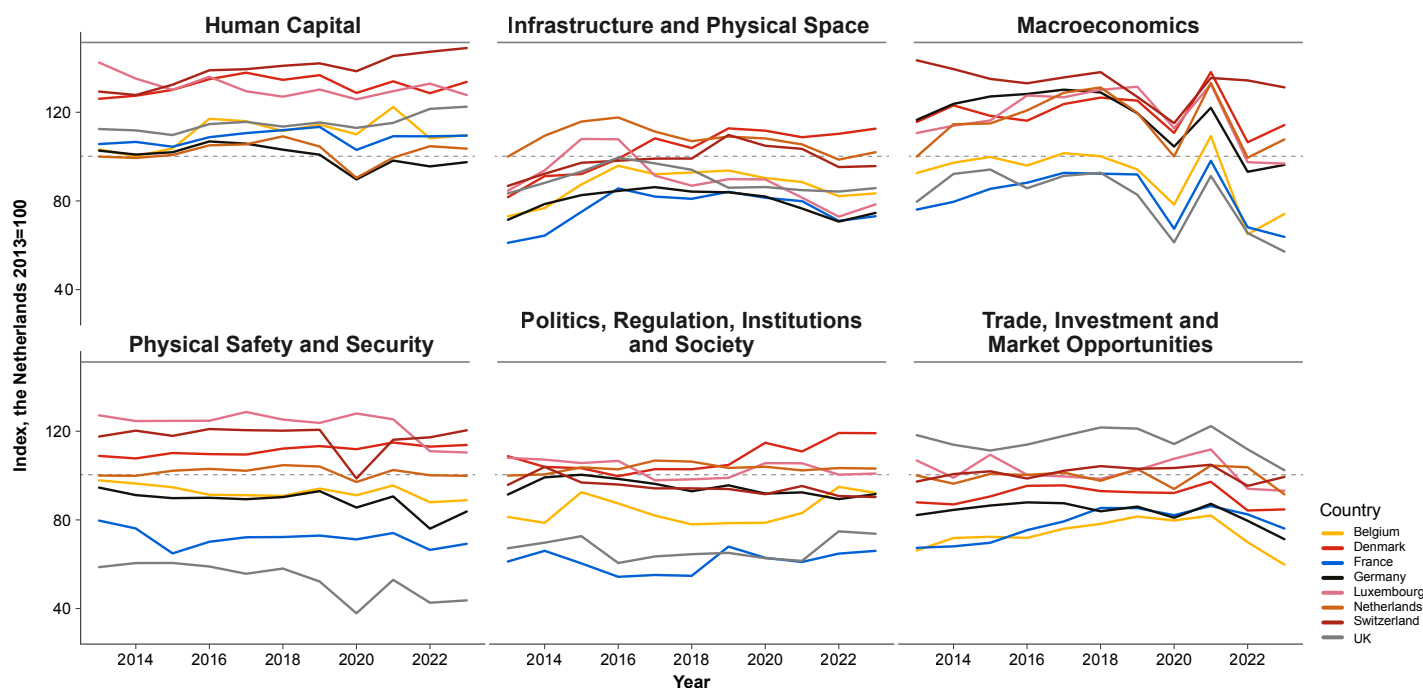
Compared to other countries in our sample, the Netherlands has managed to remain among the top four countries in all categories, except for **Human Capital**. In this category, the Netherlands has largely kept its low position, and since 2013, the Netherlands has

managed to only exceed Germany.

In **Infrastructure and Physical Space**, the Netherlands was the leading country in 2013. However, since then, Denmark has managed to perform better.

Within **Macroeconomics**, the Netherlands was in fifth place in 2013 and has now managed to climb to third. This has been the most volatile category for all countries because of the Covid-19 shock. However, Switzerland has notably managed to sustain its pre-pandemic trend, while others have experienced a dip since the Covid-19 recovery.

Figure 12 In most categories, the Netherlands has remained among the top four countries, except for Human Capital

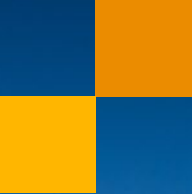


Each line represents the average relative score of the business climate for each country per category. This score is based on country-specific indicators that we have made comparable to each other. In each category, the Dutch value in 2013 is equal to 100.

The relative position of the Netherlands in **Physical Safety and Security** has remained stable at fourth place, approximately where it was in 2013. Luxembourg, the UK, Belgium and Germany have experienced declines since then.

In **Politics, Regulation, Institutions and Society**, the Netherlands started third in 2013 and finished second in 2023, slightly exceeding Luxembourg. However, this category has remained quite stable for all countries except for Belgium, which, after a dip in 2015, has recovered to the same levels in 2023.

Lastly, in the **Trade, Investment and Market Opportunities** category, the Netherlands was in the second position in 2013 and slightly exceeded the UK in the first, largely because of a less steep decline since 2022. All countries in the sample, except for Switzerland, have experienced a decline in this category in recent years.



Appendix



Extended results

Figure 13 After the peak in 2018, when the heatmap was most 'green', many indicators have deteriorated since then



Figure 14 Only the Infrastructure and Physical Space category remains 'green' in 2023 for the Netherlands

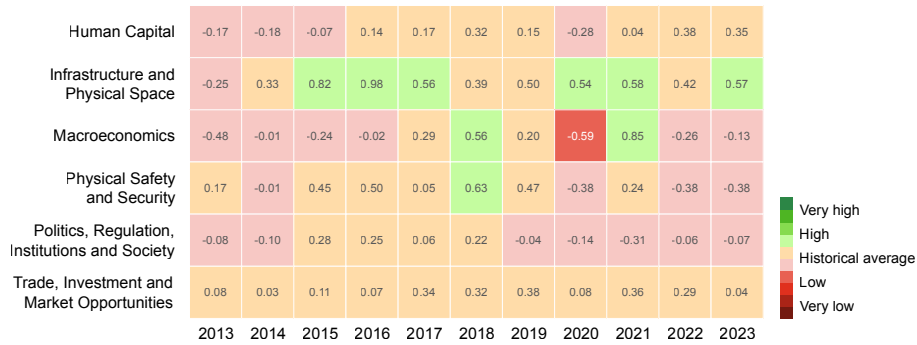


Figure 16 For Denmark, improvements since 2013 have come in the Human Capital, Infrastructure and Physical Space and Macroeconomics categories

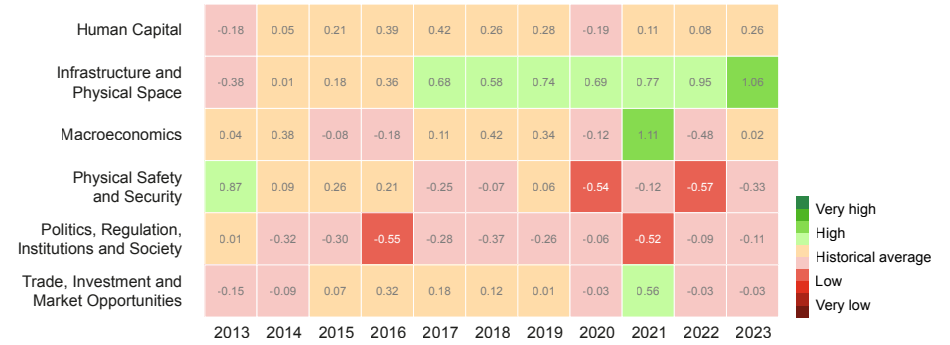


Figure 15 For Belgium, most categories have been either around the average or slightly below average since 2013

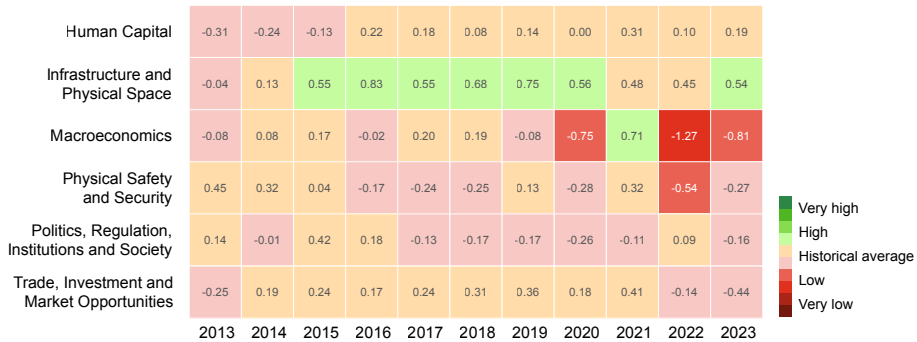


Figure 17 In several categories, France has improved since 2013, being at average or slightly above average level

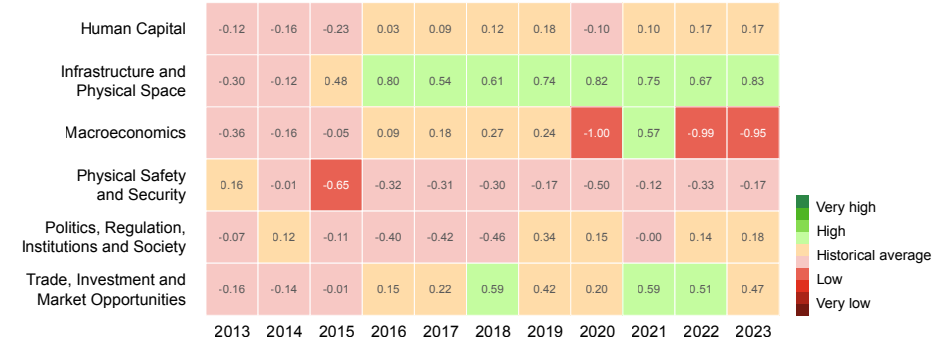


Figure 18 In 2023, Germany is below 2019 levels in all categories except Infrastructure and Physical Space and Human Capital

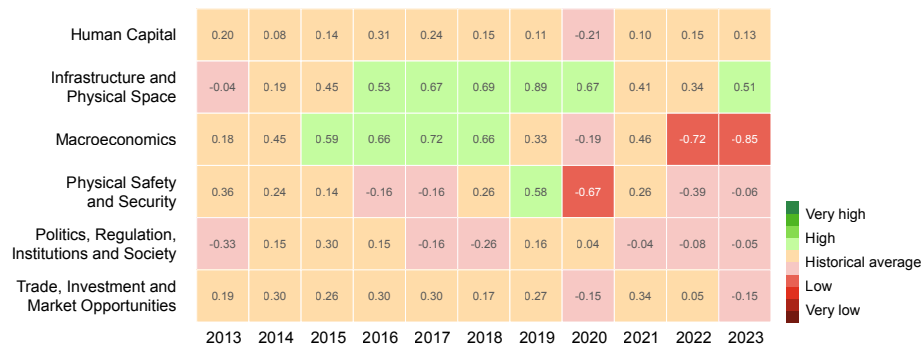


Figure 19 Within the last two years, Luxembourg has dropped in all categories except Infrastructure and Physical Space

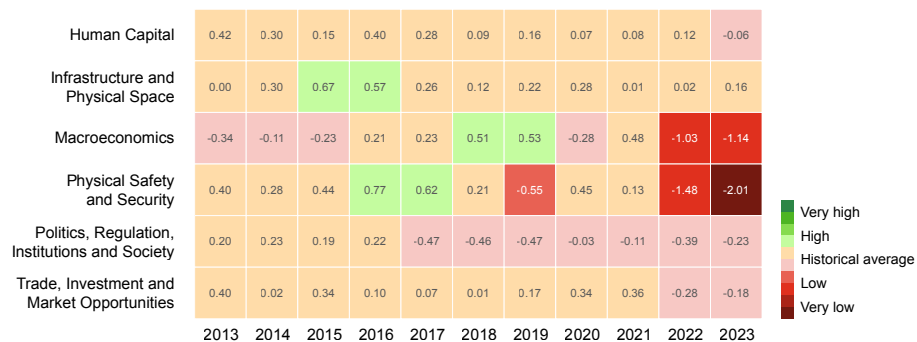


Figure 20 Since 2013, Switzerland has seen improvements in Human Capital, and Infrastructure and Physical Space, while Macroeconomics and Politics, Regulation, Institutions and Society are worse off

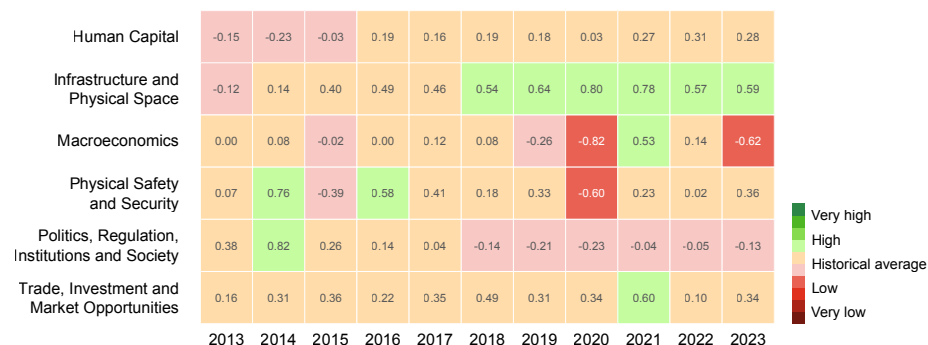
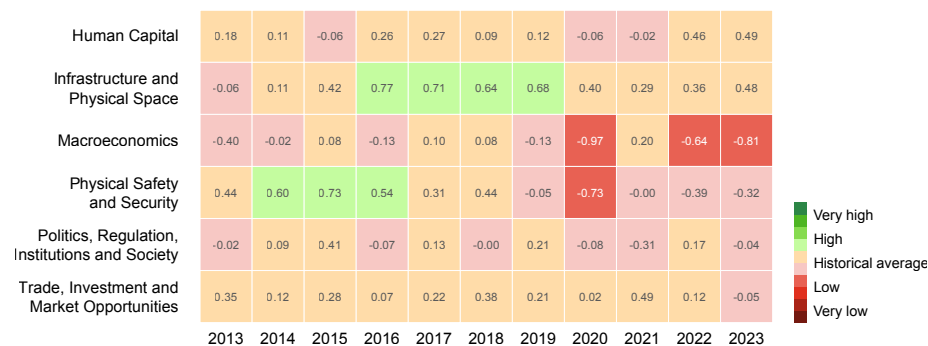


Figure 21 Since 2017, all categories have worsened in the UK, except for Human Capital, and Trade, Investment and Market Opportunities, which are at a similar level



Methodology for the Dutch business climate heatmap over time

The 60 indicators in our heatmap are from various data sources and have different values that are hard to compare (for example, inflation and population growth), so we standardise them (using Z-scores) to be able to compare the indicators across each other. To compute the Z-scores for each indicator, we subtract from a given observation in a year the historical average of the series, with as many years as there are available from 1990, and then divide this value by the historical standard deviation.

The Z-scores are aligned such that 0 is the historical average of the series, which we colour yellow. When an indicator is above (or below) its historical average, measured by 0.5 standard deviations, a colour tone changes to a progressively darker green (or red) colour. The colour grading goes from 3 (dark green) to -3 (dark red) standard deviations above or below the historical average, respectively. In addition, not all data for indicators were available for each year. If that were the case, we used the latest available year's value.

Methodology for the international business climate heatmap

To understand how the Netherlands performs in relative terms, in reference to several comparable countries, we did the following normalisation, in a comparable manner as in a study by the OECD.¹⁰ For each indicator, we pooled the data for all countries for this indicator to obtain the historical minimum and maximum in the sample for as long of a series as possible based on data availability in the 1990-2023 period. Then we normalised each indicator for each country according to this formula, obtaining a score between 0 and 1 for all observations.

$$x = \frac{(x - \text{Min}(x))}{(\text{Max}(x) - \text{Min}(x))}$$

For comparisons across countries, either on average or per category, we created a country-level score, which is the simple average of all the indicators. In addition, from those scores, we created an index rescaling all the data so that the value for the Netherlands in 2013 would equal 100.

¹⁰ OECD (2019): Measuring and assessing talent attractiveness in OECD countries.

Data scope, sources and missing observations

For most indicators, there is data available from 2013 to 2023. However, there are some data gaps. In cases of such gaps, we fill in the missing year's data for a given indicator with the latest available data point or the previous year's data. In addition, for some indicators, an increase in the value would correspond to a negative impact on the business climate (for example, inflation). For those indicators, after standardisation, we adjusted their value by multiplying by -1, so that the direction of increase in an indicator always corresponds to a positive business climate impact.

Here are more details on the sources and data for each indicator, as well as the data imputations that we performed:

1. Human Capital

- Demographics:

- *Old-age dependency ratio* (OECD, annual data, 1990-2023). Data for 2023 unavailable and replaced with 2022 data for the UK. This indicator was multiplied by -1, so that an increase would mean positive business climate impact.
- *Population density* (OECD, annual data, 1990-2023). Data for 2023 unavailable and replaced with 2022 data for the UK. This indicator was multiplied by -1, so that an increase would mean positive business climate impact.
- *Population growth* (OECD, annual data, 1990-2022). Data for 2023 unavailable and replaced with 2022 data for the Netherlands, Belgium, France, Denmark, Germany, Luxembourg, Switzerland and the UK.

- Education:

- *Global Innovation Index - Education* (Global Innovation Index, annual data, 2013-2022). This indicator includes expenditure on education, government expenditure on education, school life expectancy in years, pupil-teacher ratio and PISA scores in reading, maths and science. Data for 2023 unavailable and replaced with 2022 data for the Netherlands, Belgium, France, Germany, Denmark, Luxembourg, Switzerland and the UK.
- *Percentage of people with at least tertiary education* (OECD, annual data, 2000-2023). Data for 2023 unavailable and replaced with 2022 data for the UK.



- Human capital and research:

- *Average net income after taxes* (OECD, annual data, 2000-2023). It measures net income after taxes for single person households earning average wages in \$PPP exchange rates.
- *Life expectancy at birth* (OECD, annual data, 1990-2023). Data for 2023 unavailable and replaced with 2022 data for Germany. For the UK data for 2021, 2022 and 2023 unavailable and replaced with 2020 data.
- *Global Innovation Index – R&D* (Global Innovation Index, annual data, 2013-2022). This indicator includes researchers/FTE per million inhabitants, gross expenditure on R&D, top three firm average R&D, QS University average ranking of top three universities. Data for 2023 unavailable and replaced with 2022 data for the Netherlands, Belgium, France, Germany, Denmark, Luxembourg, Switzerland and the UK.

- Labour productivity, shortages and costs:

- *Labour productivity* (OECD, annual data, 1995-2023 for all countries, except 2002-2022 for Denmark and the Netherlands and 1995-2022 for Switzerland). Data for 2023 replaced with 2022 data for the Netherlands, Denmark and Switzerland.
- *Labour shortages* (European Commission, monthly data, France from January 1990 to December 2023, Germany from January 1991 to December 2023, Belgium from June 1994 to December 2023, the Netherlands from January 2012 to December 2023, Denmark from April 2000 to December 2023). Monthly survey data aggregate from industry responses about share of companies hoarding labour, seasonally adjusted. This indicator was multiplied by -1, so that an increase would mean positive business climate impact.
- *Unit labour costs* (OECD, annual data, 1996-2023). This indicator was multiplied by -1, so that an increase would mean positive business climate impact.

2. Infrastructure and Physical Space

- Energy and environment:

- *CO₂ emissions per capita* (Our World in Data, annual data, 1991-2022). Data for 2023 unavailable and replaced with 2022 data for the Netherlands, Belgium, France, Germany, Denmark, Luxembourg, Switzerland and the UK.
- *Global Innovation Index – Environmental performance* (Global Innovation Index, annual data, 2013-2022). Data for 2023 unavailable and replaced with 2022 data for the Netherlands, Belgium, France, Germany, Denmark, Luxembourg, Switzerland and the UK.

- *Total nitrogen oxide (NOx) emissions* (CBS, annual data, 2000-2022). Data for 2023 unavailable and replaced with 2022 data for the Netherlands, Belgium, France, Germany, Denmark, Luxembourg and the UK. For Switzerland data for 2023 and 2022 unavailable and replaced with 2021 data. This indicator was multiplied by -1, so that an increase would mean positive business climate impact.
- *Water stress level* (FAO, level of water stress: freshwater withdrawal as a proportion of available freshwater resources, annual data, 2000-2021). Data for 2022 and 2023 unavailable and replaced with 2021 data for the Netherlands, Belgium, France, Germany, Denmark, Luxembourg, Switzerland and the UK. This indicator was multiplied by -1, so that an increase would mean positive business climate impact.

- Housing:

- *Housing price to income ratio* (OECD, annual data, index 2015=100, 2003-2023). This indicator was multiplied by -1, so that an increase would mean positive business climate impact.

- Infrastructure and transport:

- *DHL Global Connectedness Index* (DHL, annual data, 2001-2022).
- *Global Innovation Index – ICT* (Global Innovation Index, annual data, 2013-2022). Data for 2023 unavailable and replaced with 2022 data for the Netherlands, Belgium, France, Germany, Denmark, Luxembourg, Switzerland and the UK.
- *World Bank Logistics Performance Index* (World Bank, annual data, 2007-2023). 2013 data unavailable and replaced with 2014 data, 2015 data unavailable and replaced with 2016, 2017 data unavailable and replaced with 2018 data and 2019, 2020, 2021, 2022 data unavailable and replaced with 2018 data for the Netherlands, Belgium, France, Germany, Denmark, Luxembourg, Switzerland and the UK.

3. Macroeconomics

- Government debt and spending:

- *General government net lending/borrowing* (International Monetary Fund, annual data, 1990-2023).
- *Index of Economic Freedom – Fiscal health* (The Heritage Foundation, annual data, 2013-2023). The score for the fiscal health component is based on two sub-factors, which are weighted as follows in calculating the overall component score: Average deficits as a percentage of GDP for the most recent three years (80% of score) and debt as a percentage of GDP (20% of score). Data for 2013, 2014, 2015 and 2016 unavailable and replaced with 2017 data for the Netherlands, Belgium, France, Germany, Denmark, Luxembourg, Switzerland and the UK.



- *Index of Economic Freedom – Government spending* (The Heritage Foundation, annual data, 2013-2023). The government spending component captures the burden imposed by government expenditures, which includes consumption by the state and all transfer payments related to various entitlement programs. The Index does not identify an optimal level of government spending. The ideal level will vary from country to country, depending on factors that range from culture to geography to level of economic development.

- **Macroeconomics:**

- *Consumer confidence* (European Commission, monthly, January 1990 to December 2023). Data is seasonally adjusted. 2021, 2022 and 2023 data unavailable and replaced with 2020 data for the UK.
- *Current account balance as % of GDP* (International Monetary Fund, annual data, 1990-2023).
- *Economic sentiment* (European Commission, monthly, January 1990 to December 2023). Data is seasonally adjusted. For the UK data for 2022 and 2023 unavailable and replaced with 2020 data.
- *Inflation* (OECD, annual data, 1996-2023 for all countries, except 1997-2023 for the Netherlands and 2006-2023 for Switzerland). This indicator was multiplied by -1, so that an increase would mean positive business climate impact.
- *Real GDP growth* (International Monetary Fund, annual data, 1990-2023, except for the Netherlands 1991-2023).

- **Uncertainty:**

- *World Uncertainty Index* (World Uncertainty Index, monthly data, January 2008 to December 2023). This indicator was multiplied by -1, so that an increase would mean positive business climate impact.

4. Physical Safety and Security

- **Crime and safety:**

- *Homicides per 100,000 inhabitants* (Eurostat, annual data, 2008-2022). Data for 2023 unavailable and replaced with 2022 data for the Netherlands, Belgium, France, Germany, Denmark, Luxembourg and Switzerland. For the Netherlands 2010-2012 data unavailable and replaced with 2013 data. For the UK data for 2019-2023 unavailable and replaced with 2018 data. This indicator was multiplied by -1, so that an increase would mean positive business climate impact.

- *Thefts per 100,000 inhabitants* (Eurostat, annual data, 2008-2022). Data for 2023 unavailable and replaced with 2022 data for the Netherlands, Belgium, France, Germany, Denmark, Luxembourg and Switzerland. For the UK data for 2019-2023 unavailable and replaced with 2018 data. This indicator was multiplied by -1, so that an increase would mean positive business climate impact.

- **Risk and disasters:**

- *Geopolitical Risk Index* (Federal Reserve Bank of New York, monthly data, January 1990 to December 2023). Measures adverse geopolitical events and associated risks based on a tally of newspaper articles covering geopolitical tensions and examine its evolution and economic effects since 1900. This indicator was multiplied by -1, so that an increase would mean positive business climate impact.
- *Inform Risk Index* (INFORM, annual data, 2015-2023). The INFORM risk index identifies countries at risk from humanitarian crises and disasters that could overwhelm national response capacity. It is made up of three dimensions - hazards and exposure, vulnerability and lack of coping capacity. Data for 2013 and 2014 unavailable and replaced with 2015 data for France, Germany, Luxembourg, Switzerland and the UK. This indicator was multiplied by -1, so that an increase would mean positive business climate impact.
- *World Pandemic Uncertainty Index* (World Uncertainty Index Pandemic Uncertainty, monthly data, January 1996 to December 2023). The World Pandemic Uncertainty Index is constructed by counting the number of times uncertainty is mentioned within a proximity to a word related to pandemics in the Economist Intelligence Unit (EIU) country reports. Specifically, the index is the percent of the word “uncertain”, and its variants, that appear near the pandemic terms in EIU country reports, multiplied by 1,000. A higher number means higher uncertainty related to pandemics and vice versa. This indicator was multiplied by -1, so that an increase would mean positive business climate impact.
- *World Risk Report* (World Risk Report, annual data, 2000-2023). The World Risk Report indicates the disaster risk from extreme natural events and negative climate change impacts. This indicator was multiplied by -1, so that an increase would mean positive business climate impact.



5. Politics, Regulation, Institutions and Society

- Democracy:

- *EIU Democracy Index* (Economist Intelligence Unit, annual data, 2006-2022). Data for 2023 unavailable and replaced with 2022 data for the Netherlands, Belgium, France, Germany, Denmark, Luxembourg, Switzerland and the UK.
- *Global Innovation Index – Political and Operational Stability* (Global Innovation Index, annual data, 2013-2022). Data for 2023 unavailable and replaced with 2022 data for the Netherlands, Belgium, France, Germany, Denmark, Luxembourg, Switzerland and the UK.

- Equality:

- *Gini coefficient* (Our World In Data, annual data, 1991-2023). Data for 2022 and 2023 unavailable and replaced with 2021 data for the Netherlands, Belgium, France, the UK, Denmark and Luxembourg. Data unavailable for 2021, 2022 and 2023 for Switzerland and replaced with 2020 data. Data unavailable for 2020, 2021, 2022 and 2023 unavailable and replaced with 2019 data for Germany. This indicator was multiplied by -1, so that an increase would mean positive business climate impact.
- *WEF Global Gender Gap Index* (World Economic Forum, annual data, 2006-2023). Data for 2019 unavailable and replaced with 2020 data, and data for 2023 unavailable and replaced with 2022 data for the Netherlands, Belgium, France, Germany, Denmark, Luxembourg, Switzerland and the UK.

- Governance:

- *WJP Rule of Law Index* (World Justice Project, annual data, 2012-2023). Data for 2013-2020 unavailable for Luxembourg and replaced with 2021 data.
- *WGI – Government effectiveness* (World Bank, annual data, 1996-2022). Data for 2023 unavailable and replaced with 2022 data for the Netherlands, Belgium, France, Germany, Denmark, Luxembourg, Switzerland and the UK.

- Regulatory and Policy Environment:

- *Economic Policy Uncertainty Index* (Economic Policy Uncertainty Index, monthly data, January 2003 to October 2023). Data for 2020, 2021, 2022 and 2023 unavailable and replaced with 2020 data for the Netherlands and Belgium. For Denmark data for 2022 and 2023 unavailable and replaced with 2021 data. This indicator was multiplied by -1, so that an increase would mean positive business climate impact.
- *Global Innovation Index – Cost of redundancy dismissal* (Global Innovation Index, annual data, 2013-2022). Data for 2023 unavailable and replaced with 2022 data for the Netherlands, Belgium, France, Germany, Denmark, Luxembourg, Switzerland and

the UK. This indicator was multiplied by -1, so that an increase would mean positive business climate impact.

- *Global Innovation Index – Regulatory burden* (Global Innovation Index, annual data, 2013-2022). Data for 2023 unavailable and replaced with 2022 data for the Netherlands, Belgium, France, Germany, Denmark, Luxembourg, Switzerland and the UK. This indicator was multiplied by -1, so that an increase would mean positive business climate impact.
- *WGI – Regulatory quality* (World Bank, annual data, 1996-2022). Data for 2023 unavailable and replaced with 2022 data for the Netherlands, Belgium, France, Germany, Denmark, Luxembourg, Switzerland and the UK.

- Taxes:

- *Index of Economic Freedom – Tax burden* (The Heritage Foundation, annual data, 2013-2023) The score is derived from three equally weighted quantitative sub-factors: The top marginal tax rate on individual income, the top marginal tax rate on corporate income, and the total tax burden as a percentage of GDP. This indicator was multiplied by -1, so that an increase would mean positive business climate impact.
- *International Tax Competitiveness Index* (Tax Foundation, annual data, 2014-2023). Data for 2013 not available and replaced with 2014 data for the Netherlands, Belgium, France, Germany, Denmark, Luxembourg, Switzerland and the UK.

6. Trade, Investment and Market Opportunities

- Capital markets:

- *Global Innovation Index – Investment:* (Global Innovation Index, annual data, 2013-2022). This index measures the market cap as a percentage of GDP. Data for 2023 unavailable and replaced with 2022 data for the Netherlands, Belgium, France, Germany, Denmark, Luxembourg, Switzerland and the UK.
- *Market cap of domestic listed companies* (World Bank, annual data, 1991-2022). Data for 2023 unavailable and replaced with 2022 data for Germany, Luxembourg and Switzerland. For Belgium and France data for 2019-2023 unavailable and replaced with 2018 data. For the Netherlands data for 2018-2023 unavailable and replaced with 2017 data. For the UK data for 2015-2020 unavailable and replaced with 2021 data, and data for 2023 replaced with 2022 data.
- *Number of listed domestic companies* (World Bank, annual data, 1991-2022). Data for 2023 unavailable and replaced with 2022 data for Germany, Luxembourg and Switzerland. For France and the Netherlands data for 2019, 2020, 2021, 2022, 2023

unavailable and replaced with 2018 data. For Belgium data for 2016-2023 unavailable and replaced with 2015 data. For the UK data for 2015-2020 unavailable and replaced with 2021 data, and data for 2022 and 2023 replaced with 2021 data.

- **Credit:**

- *Average cost of borrowing* (European Central Bank, monthly data, January 2003 to December 2023). This measure is based on the composite cost of borrowing non-financial corporations. This indicator was multiplied by -1, so that an increase would mean positive business climate impact.
- *Global Innovation Index – Credit* (Global Innovation Index, annual data, 2013-2022). This index includes the ease of getting credit, domestic credit to private sector as a percentage of GDP and microfinance gross loans as a percentage of GDP. Data for 2023 unavailable and replaced with 2022 data for the Netherlands, Belgium, France, Germany, Denmark, Luxembourg, Switzerland and the UK.

- **Economic dynamism and competition:**

- *Firm entries per 1000 inhabitants* (OECD, annual data, 2007-2023). Data for 2022 and 2023 unavailable and replaced with 2021 data for France. For Germany data for 2023 unavailable and replaced with 2022 data. For Denmark data for 2019, 2020, 2021 2022 and 2023 unavailable and replaced with 2018 data.
- *Global Innovation Index – Trade, diversification and market scale* (Global Innovation Index, annual data 2013-2022). This measure includes the weighted mean applied tariff rate, the intensity of local competition and domestic market scale. Data for 2023 unavailable and replaced with 2022 data for the Netherlands, Belgium, France, Germany, Denmark, Luxembourg, Switzerland and the UK.
- *Share of turnover accounted for by large companies* (OECD, annual Data, 2005-2022). Includes companies with more than 250 employees. Data for 2023 unavailable and replaced with 2022 data for the Netherlands, Belgium, France, Germany, Denmark, Luxembourg and Switzerland. For Switzerland also data for 2021 unavailable and replaced with 2020 data. This indicator was multiplied by -1, so that an increase would mean positive business climate impact.

- **Financial soundness:**

- *Bank capital to assets ratio* (World Bank, annual data, 2008-2022). Data for 2023 unavailable and replaced with 2022 data for the Netherlands, Denmark, Luxembourg and the UK. For Germany and Luxembourg data for 2022 and 2023 unavailable and replaced with 2021 data. For France data for 2020, 2021 and 2022 unavailable and replaced with 2019 data.

- *Non-performing loans as a share of total gross loans* (World Bank, annual data, 2008-2022). Data for 2023 unavailable and replaced with 2022 data for the Netherlands, Belgium, Luxembourg and the UK. For France, Denmark and Switzerland data for 2022 and 2023 unavailable and replaced with 2021 data. For Denmark also data for 2013 and 2014 unavailable and replaced with 2015 data. For Germany data for 2020, 2021, 2022 and 2023 unavailable and replaced with 2019 data. For Luxembourg also data for 2014 and 2015 unavailable and replaced with 2016 data. This indicator was multiplied by -1, so that an increase would mean positive business climate impact.

- **Investment:**

- *FDI net inflows* (OECD, annual data, 2005-2023).
- *FDI net outflows* (OECD, annual data, 2005-2023). For Switzerland 2013 data unavailable and replaced with 2014 data.
- *Index of Economic Freedom – Investment Freedom* (The Heritage Foundation, annual data, 2013-2023). The Index evaluates a variety of regulatory restrictions that typically are imposed on investment.

- **Trade:**

- *Trade as % of GDP* (OECD, quarterly data, 1991-2023).

Missing indicators

Data availability was a concern for these indicators in:

- Denmark: *Average cost of borrowing, Number of listed domestic companies, Market cap of listed domestic companies.*
- Luxembourg: *World Uncertainty Index, Firm entries per 1000 inhabitants, Economic Policy Uncertainty Index, Geopolitical Risk Index, World Pandemic Uncertainty Index, Labour shortages.*
- Switzerland: *Economic Policy Uncertainty Index, WJP Rule of Law Index, Economic Sentiment, Consumer Confidence, Average cost of borrowing, Firm entries per 1000 inhabitants, Labour shortages.*
- UK: *Firm entries per 1000 inhabitants, Unit labour costs, Share of turnover accounted for by large companies, Labour shortages.*

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